

WATER & WASTEWATER DIGEST

Winter 2024

Computer-Based Operator Certification Exams

The Missouri Department of Natural Resources is pleased to announce that computer-based operator certification exams are available for drinking water distribution and treatment, wastewater treatment, and concentrated animal feeding operations (CAFO). The department began offering computer-based operator certification exams June 7, 2023, following a contract with Water Professionals International that became effective Jan. 1, 2023.

The transition to computer-based exams replaced a decades-old process for paper certification exams, which the department administered by hosting group exam sessions monthly in Jefferson City and quarterly at each of the department's regional offices. Examinees had to wait for the department to mail the exam results, which often took a few weeks to receive.

In the first six months, the department processed 842 exam applications. The department is excited about the benefits that computer-based exams offer to Missouri's water, wastewater and CAFO professionals. Those benefits include:

Faster Exam Scheduling

Once the department processes an exam application, the examinee receives an email from PSI Exams with instructions to self-schedule their exam. PSI, a third-party contractor, provides exam delivery software and maintains the testing centers. Many different professions use PSI to administer exams. Availability can vary, but in many cases if an examinee receives an email from PSI Exams on a Monday, they could schedule their exam for Wednesday of the same week. Because the email is not from the department, examinees should regularly check for the email after submitting an application. If they don't find the email in their inbox, we recommend looking in the spam, junk and trash folders. Examinees can always contact our office for a more exact date to help find the email.

Choice of an In-Person or Remotely Proctored Exam

Examinees can choose between taking an exam at one of the testing centers using the provided computer equipment or a remotely proctored exam.

Computer-Based Exams

[Applications for Abandoned Well Plugging Grants](#)

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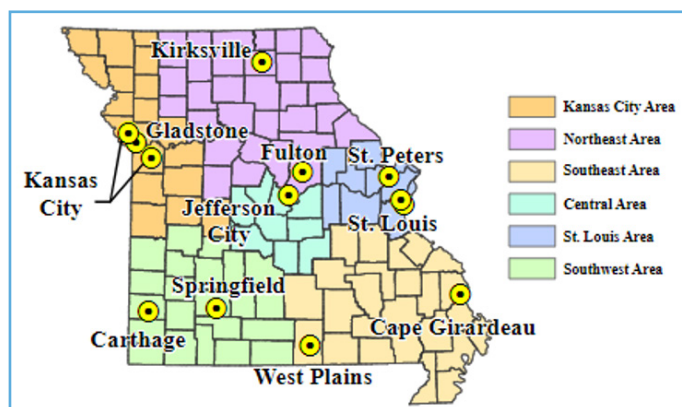
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Convenient In-Person Testing Locations:

A list of the 13 test center locations in Missouri is available on the department's website by using this [link](#). Locations outside of Missouri are also available for examinees who live close to state lines. These locations provide exams for a variety of professions. Examinees use small computer kiosks similar to those found at libraries. Some test locations are open on Saturdays.

Remote Testing Available:

A trained proctor monitors examinees live during the exam. For this option, examinees must have a computer with functioning web camera, microphone, stable broadband internet connection and a quiet room that is free of distractions, test notes and other people. More information about remote testing, including equipment requirements, is available on the [department's website](#).



Immediate Exam Results

Examinees receive their exam score immediately upon completing the computer-based exam. This replaces the four weeks it often took to receive exam results when the department was administering paper exams.

Unchanged Exam Content

The exam content did not change during the transition period. This allowed the department to provide the same content in both paper and computer-based exams during the transition. Math formulas are still available as a reference resource during computer-based exams. All exams continue to be closed-book exams.

Unchanged Fees

Fees have not changed. Wastewater and CAFO exams remain \$45, while drinking water treatment and distribution exams are still \$50 each.

Special thanks to the applicants who were early adopters of computer-based exams. We invite examinees to share feedback about their experience. If you have questions, or want to share feedback, please contact the department's Operator Certification Unit at 573-751-1600 or by email at opcrt@dnr.mo.gov.

Missouri Department of Natural Resources Now Accepting Applications for Abandoned Well Plugging Grants

Community and not-for-profit noncommunity public water systems with at least one active or emergency well are eligible to apply for reimbursement funding through this program to plug abandoned water wells. Awards are limited to a maximum amount of \$20,000. The priority application period is open from Nov. 1 through December 31, 2023. Applications received from Jan. 1 through April 30, 2024, may be awarded on a first-come, first-served basis if available funds remain. Public well plugging requires a cost-share of 25%, while private and multiple-family wells have no cost-share requirement.

To apply or for more information, please see the Abandoned Well Plugging Grant webpage: [Abandoned Well Plugging Grant | Missouri Department of Natural Resources \(mo.gov\)](#).

If you have any questions or would like additional information, please reach out to Kaylee Schlosser via email at Kaylee.Schlosser@dnr.mo.gov or via phone at 573-526-2180.

Source Water Protection

Benjamin Franklin once said, “An ounce of prevention is worth a pound of cure.” This philosophy, that it’s easier to stop something from happening than to repair the damage after it has occurred, applies to so many things, including drinking water. The benefits of a Source Water Protection Plan are immeasurable. A Source Water Protection Plan helps strengthen communities by protecting Missouri’s streams, lakes and groundwater resources from contamination.

The American Water Works Association, the Missouri Department of Natural Resources and others celebrated National Source Water Protection Week during the week of Sept. 24.

This year, the theme for Source Water Protection Week was “Protecting the Source.” One of the first steps to protecting source water is to create a Source Water Protection Plan. These plans promote collaboration between the department, public water systems and local communities to effectively manage and protect source water protection areas.

A great way to start a local source water protection program is through community outreach and education. Educating the public on the importance of, and risks to, their local drinking water sources helps the community invest in their local water resources and empowers them to take an active role in protecting these resources. By increasing community awareness, everyone can play a part in protecting their local water resources, which leads to a healthier and cleaner environment. An effective plan also has a direct impact on the public’s confidence and trust in their local water utility.

The department wants to thank water utilities and water operations professionals for all their efforts to maintain the vitality and health of Missouri communities! Without your continuous and dedicated hard work, we would not have the healthy and safe drinking water that millions of Missourians use and rely on every day.

For more information on creating a plan, visit the [department’s source water protection webpage](#) or reach out to Kaylee Schlosser via email at Kaylee.Schlosser@dnr.mo.gov or via phone at 573-526-2180.

Meeting Sample Temperature Requirements

Sample preservation, particularly sample temperature, is an important consideration when shipping drinking water kits for chemical analysis to the department’s Environmental Services Program. Pre-chill samples for at least six hours prior to shipping and prepare the gel packs you plan to use during shipping by freezing them for at least 12 hours prior to shipping. Place the pre-chilled samples and all of the frozen ice packs into the cooler or insulated box and ship immediately.

Water system representatives can ship samples via FedEx or the department’s courier service. Avoid shipping samples on Friday or the day before a holiday, because this can lead to longer shipping times that can cause samples to exceed the temperature requirements. Samples that exceed temperature requirements are invalidated and re-sampling will be necessary.

For questions about returning chemical sample kits, contact the Environmental Services Program at 573-526-3333.

Lead Service Line Inventory Tips and Resources

The Oct. 16, 2024, deadline for water systems to submit their initial lead service line inventories (LSLI) to the Missouri Department of Natural Resources is fast approaching. The U.S. Environmental Protection Agency has described these inventories as a process of elimination and that the inventory spreadsheet will serve as a “living document” to be developed and maintained. The initial LSLI does not need to be 100% complete with all service line materials identified. However, each service line must be included in the inventory. The system can list the service lines they have not yet examined as “unknown.”

Although a water system can list service lines as unknown on the inventory, eliminating as many unknowns as possible will reduce the number of subsequent customer notifications. Within 30 days of submitting the initial LSLI, water systems must notify all customers that have a lead, galvanized requiring replacement or unknown service line, and provide information about health effects, how to reduce the level of lead in drinking water and opportunities to replace the service line.

The department recommends that a water system’s first step should be a records review. For any given record set indicating service line material type, 10% visual inspection is required (randomized sample with 95% accuracy threshold) to validate a given record set is trustworthy. If the water system determines that the data set is not 95% accurate, the water system must use other methods or records to identify the service line material.

A common question is whether a water system can sample water at the customer’s tap to identify a lead service line. Water testing, although convenient, is not a reliable method for service line identification in Missouri. The reason is that hard water, lime softening or corrosion control treatment can prevent leaching and mask the presence of lead or galvanized service lines. A positive result may indicate the presence of lead or galvanized service line material, but a negative result only demonstrates “no detect” at the time of sampling. From a public health perspective, sampling does not tell indicate if lead infrastructure exists.

Visual inspection or excavation is a last resort if no other records or methods exist for either the system-owned or customer-owned sides of the service line. It might be possible to complete a visual inspection by looking in the meter pit and where the service line enters the building. If the water system used connectors, it may be necessary to use excavation to see the service line. EPA recommends three points of identification for a service line with split ownership: one pothole on each side of the water meter and one near the foundation of the building, or internal visual inspection at the point the service line enters the building or residence through the basement wall, the floor or foundation. Two types of excavation are hydro-vac “pot holing” or “open trench” that exposes 3 to 5 feet of service line. Take pictures to document the excavation and inspection.

Resources

Systems can apply annually through 2026 for Bipartisan Infrastructure Law (BIL) grant funding. Systems can use BIL funding to hire independent contractors to help with customer outreach efforts, including on-sight inspections.

- [Getting Started Factsheet](#).
- [Template lead service line inventory spreadsheet](#) for small/medium systems for preparing and submitting inventories. A spreadsheet for large systems is also available on the Lead Service Line homepage.
- [Water Service Line Inventory Self Identification Form](#) for customers.
- [Water Service Line Inventory Self Identification Affidavit](#) for customers.
- [Lead Service Line homepage](#) with how to identification videos, picture guides and more.

For more information, please feel free to contact Austen Dudenhoeffer with the department’s Public Drinking Water Branch by email at Austen.Dudenhoeffer@dnr.mo.gov or by phone at 573-751-6171.

Check Your Training Hours

Certified operators are encouraged to access training reports by visiting the department's website at apps5.mo.gov/operator/index.do. To log in, the password is the last four digits of your social security number.

You can check training hours, renew certificates online and view and update contact information for public drinking water systems, including the chief operator, sample collector and administrative contact.

For more information, contact the department's Operator Certification Unit at 800-361-4827 or 573-751-1600.

Find Training

Visit the department's [Operator Certification page](#) to view upcoming training opportunities and search for courses by date and location.



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